PATENT APPLICATION
Attorney Dkt. No.: 7512.130

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

CHEN et al.

Application No.: 10/529,012 Group Art Unit: 1653

Filed: March 24, 2005 Examiner: Hamidinia, Shawn A.

For: POLYSACCHARIDE-BASED POLYMERS AND METHODS OF MAKING THE SAME

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant hereby submits this Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97(c) to bring to the attention of the Examiner the document listed on the attached PTO Form 1449.

The Rule 17(p) official fee required by Rule 97(c) in lieu of certification is filed herewith. Should that fee be missing or inadequate, please charge the deficiency to our Deposit Account 50-0548.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If it should be determined that any of the listed documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

This Information Disclosure Statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f) to enable Applicant to comply fully.

Consideration of the foregoing plus return of a copy of the herewith Form PTO 1449 with the Examiner's initials in the left column per MPEP 609 are earnestly.

Respectfully submitted,

April 26, 2006
Date

David S. Taylor
Reg. No. 39,045

BERENATO, WHITE & STAVISH, LLC
6550 Rock Spring Drive, Suite 240
Bethesda, Maryland 20817
Telephone: (301) 896-0600
Facsimile: (301) 896-0607

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Application Number	10/529,012
Filing Date	March 24, 2005
First Named Inventor	T. Chen
Art Unit	1653
Examiner Name	Shawn Hamidinia
Attorney Docket Number	7512.130

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 2002/0084194	07-04-2002	Redepenning	
		US- 5,474,989	12-12-1995	Hashimoto et al.	
		US- 5,147,698	09-15-1992	Cole	
		US- 5,422,116	06-1995	Yen, et al.	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]
		WO 00/11038	03-02-2000	Kumar		
		JP-A-9 239 396				✓
		WO/2004/018741	03-04-2004	Yi		

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Examiner Name	Shawn Hamidinia
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		Sun et al., Tyronsinase-Containing Chitosan Gels: A Combined Catalyst and Sorbent for Selective Phenol Removal. Biotechnology and Bioengineering, Vol. 51, pp. 79-86 (1996)	
		Tatsumi, K. et al., Removal of Phenols from Wastewater by an Enzyme and Chitosan, Advances in Chitin Sciences, Vol. 2, pp. 864-869 (1997)	
		Muzzarelli, et al., Tyrosinase-mediated quinone tanning of chitinous materials, Carbohydrate Polymers, Vol. 24, pp. 295-300 (1994)	
		Wada et al., "Removal of Phenols and Aromatic Amines from Wastewater by a Combination ... a Coagulent," Biotechnology & Bioengineering, Vol. 45, pp. 304-309 (1995)	
		Payne et al., "Tyrosinase Reaction/Chitosan Adsorption for Selectively Removing Phenols from Aqueous Mixtures," Biotechnology & Bioengineering, 40, No. 9 (1992)	
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		Chen et al., "pH-Sensitive Thin Hydrogel Microfabricated by Photolithography", Langmuir, Vol. 14, pp. 6610-6612 (1998)	
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		Sirkar et al., "Amperometric Biosensors Based on Oxidoreductases Immobilized in Photopolymerized ..." Analytic Chemistry, Vol. 70, No. 14, pp. 2888-2894 (1998)	

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		Li-Qun Wu, et al., "Chitosan-Mediated and Spatially Selective Electrodeposition of Nanoscale Particles," Langmuir, Vol. 21, No. 8, pp. 3641-3646, 2005	
		Li-Qun Wu, et al., Spatially Selective Deposition of a Reactive Polysaccharide Chitosan Layer onto a Patterned Template," Langmuir, Vol 19, No. 3, pp. 519-524 (2003)	
		Li-Qun Wu, et al., "Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface," Langmuir, Vol. 18, No. 22, pp. 8620-8625 (2002)	
		Tianhong Chen, et al., "Enzymatic Methods for in Situ Cell Entrapment and Cell Release," Biomacroolecules, Vol. 4, No. 6, pp. 1558-1563 (2003)	
		Mark J. Kastantin, et al., "Integrated Fabrication of Polymeric Devices for Biological Applications," Invited Paper, Journal of Sensors and Materials, pp. 1-18 (9/2003)	
		Tianhong Chen, et al., "Nature-Inspired Creation of Protein-Polysaccharide Conjugate and Its Subsequent ...Patterned Surface," Langmuir, Vol. 19, No. 22, pp. 9382-86 (2003)	
		Rohan Fernandes, et al., "Electrochemical Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface," Langmuir, Vol. 19, No. 10, pp. 4058-62 (2003)	
		Hyunmin, Yi, et al., "A Robust Technique for Assembly of Nucleic Acid Hybridization .. Chitosan", Analytical Chemistry, Vol. 76, No. 2, pp. 365-372 (1/15/2004)	
		Rohan Fernandes, et al., "Thermo-Biolithography: A Technique for Patterning Nucleic Acids and Proteins," Langmuir, Vol. 20, No. 3, pp. 906-913 (2004)	
		Li-Qun Wu, et al. "Spatially-Selective Assembly of a Reactive Polysaccharide Layer onto Patterned Surfaces," PowerPoint Presentation given 11/8/2002 (22 slides)	

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		Takenaka, et al., Sol-gel Preparation of a Single Layer, 0.75 micron thick lead zirconate titanate films...," Applied Physics Letters," Vol. 79, No. 21 pp. 3485-3487 (2001)	
		O'Connor, et al., "Immobilization of Neural Cells in Three-Dimensional Matrices for Biosensor Applications," Biosensors & Bioelectrics, Vol. 14, pp. 871-881 (2000)	
		Zhitomirsky, et al., "Cathodic Electrodeposition of Polymer Films and Organoceramic Films," Materials Science and Engineering, Vol. B78, pp. 125-130 (2000)	
		Chen, et al., "Self-Assembly of Monolayers of Cadmium Selenide Nanocrystals with Dual Color Emission," Langmuir, Vol. 15, pp. 6845-6850 (1999)	
		Clark, "Engineering the Microfabrication of Layer-by-Layer Thin Films," Advanced Materials (1998)	

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